

Spring (Heavy Gauge) Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
332611, Spring (heavy gauge) manufacturing	2002..	112	116	3 972	149 061	2 744	5 339	85 609	380 791	338 236	717 530	20 961
	2001..	N	N	5 284	193 083	3 813	7 600	124 880	415 713	453 690	895 141	29 161
	2000..	N	N	5 871	211 502	4 332	8 999	139 022	470 242	478 436	938 050	31 204
	1999..	N	N	5 718	199 268	4 339	9 290	133 866	468 232	478 531	954 011	36 905
	1998..	N	N	6 144	215 557	4 805	10 392	156 516	482 009	515 805	1 006 494	43 498
	1997..	124	130	5 581	183 180	4 284	9 112	127 591	422 894	428 345	845 199	49 756

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
332611, Spring (heavy gauge) manufacturing												
United States	—	116	44	3 972	149 061	2 744	5 339	85 609	380 791	338 236	717 530	20 961
California	4	16	6	374	14 904	259	503	9 008	28 985	19 039	46 917	1 274
Illinois	1	14	7	490	16 374	405	788	11 285	46 184	26 825	73 003	2 693
Michigan	5	9	4	174	6 833	103	196	3 617	10 949	9 576	20 505	1 083
Ohio	—	6	3	290	8 707	233	453	6 323	12 197	28 521	42 011	911
Pennsylvania	—	14	7	864	33 717	496	998	17 665	82 526	88 501	174 720	2 116
Texas	—	7	4	194	6 114	158	309	4 188	12 865	11 621	24 555	586

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
332611, Spring (heavy gauge) manufacturing	
Companies ¹	number.. 112
All establishments ²	number.. 116
Establishments with 1 to 19 employees	number.. 72
Establishments with 20 to 99 employees	number.. 36
Establishments with 100 employees or more	number.. 8
All employees ³	number.. 3 972
Total compensation	\$1,000.. 184 317
Annual payroll	\$1,000.. 149 061
Total fringe benefits	\$1,000.. 35 256
Production workers, average for year	number.. 2 744
Production workers on March 12	number.. 2 799
Production workers on May 12	number.. 2 779
Production workers on August 12	number.. 2 729
Production workers on November 12	number.. 2 659
Production worker hours	1,000.. 5 339
Production worker wages	\$1,000.. 85 609
Total cost of materials	\$1,000.. 338 236
Materials, parts, containers, packaging, etc., used	\$1,000.. 255 134
Resales	\$1,000.. 58 020
Purchased fuels	\$1,000.. 6 183
Purchased electricity	\$1,000.. 8 131
Contract work	\$1,000.. 10 768
Quantity of electricity purchased for heat and power	1,000 kWh.. 140 881
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 717 530
Primary products value of shipments	\$1,000.. 555 608
Secondary products value of shipments	\$1,000.. 74 470
Total miscellaneous receipts	\$1,000.. 87 452
Value of resales	\$1,000.. D
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. D
Primary products specialization ratio	percent.. 88
Value of primary products shipments made in all industries	\$1,000.. 676 047
Value of primary products shipments made in this industry	\$1,000.. 555 608
Value of primary products shipments made in other industries	\$1,000.. 120 439
Coverage ratio	percent.. 82
Value added	\$1,000.. 380 791
Total inventories, beginning of year	\$1,000.. 86 531
Finished goods inventories	\$1,000.. 54 782
Work-in-process inventories	\$1,000.. 10 931
Materials and supplies inventories	\$1,000.. 20 818
Total inventories, end of year	\$1,000.. 91 574
Finished goods inventories	\$1,000.. 56 616
Work-in-process inventories	\$1,000.. 10 594
Materials and supplies inventories	\$1,000.. 24 364
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 362 745
Total capital expenditures (new and used)	\$1,000.. 20 961
Buildings and other structures (new and used)	\$1,000.. 1 244
Machinery and equipment (new and used)	\$1,000.. 19 717
Automobiles, trucks, etc., for highway use	\$1,000.. 553
Computers and peripheral data processing equipment	\$1,000.. 1 870
All other expenditures for machinery and equipment	\$1,000.. 17 294
Total retirements	\$1,000.. 10 123
Gross value of depreciable assets at end of year	\$1,000.. 373 583
Depreciation charges during year	\$1,000.. 25 583
Total rental payments	\$1,000.. 9 531
Buildings and other structures	\$1,000.. 7 058
Machinery and equipment	\$1,000.. 2 473
Total other expenses ⁴	\$1,000.. 46 121
Response coverage ratio ⁵	percent.. 80
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 5 958
Communications services ⁴	\$1,000.. 1 397
Legal services ⁴	\$1,000.. 944
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 877
Advertising and promotional services ⁴	\$1,000.. 2 961
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 397
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 557
Management consulting and administrative services ⁴	\$1,000.. 1 750
Taxes and license fees ⁴	\$1,000.. 1 318
All other expenses ⁴	\$1,000.. 29 962

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
332611, Spring (heavy gauge) manufacturing											
All establishments	—	116	3 972	149 061	2 744	5 339	85 609	380 791	338 236	717 530	20 961
Establishments with—											
1 to 4 employees	9	34	b	D	D	D	D	D	D	D	D
5 to 9 employees	8	23	164	5 913	123	242	3 974	11 952	10 108	22 092	944
10 to 19 employees	3	15	209	7 797	142	288	4 188	18 671	12 571	31 207	671
20 to 49 employees	—	16	519	19 200	353	699	11 370	44 797	24 846	69 979	3 365
50 to 99 employees	1	20	1 424	54 847	1 079	2 150	34 530	112 472	91 613	201 792	5 905
100 to 249 employees	—	6	1 041	39 970	618	1 224	17 718	116 083	124 506	241 111	6 975
250 to 499 employees	—	2	f	D	D	D	D	D	D	D	D
500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	47	161	5 979	132	249	4 281	11 805	9 983	21 788	987

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
332611	Spring (heavy gauge) manufacturing . .	116	3 972	149 061	2 744	5 339	85 609	380 791	338 236	717 530	20 961
3326111	Hot formed steel springs, except wire.....	33	2 187	76 674	1 573	3 010	48 493	195 981	175 606	374 218	10 033
3326113	Cold formed steel springs, except wire.....	25	1 508	62 112	970	1 941	30 608	161 665	145 533	303 087	9 440

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
332611	Spring (heavy gauge) manufacturing	2002.. N	X	X	676 047
	1997.. N	N	X	X	873 310
3326111	Hot formed steel springs, except wire	2002.. N	X	X	314 092
	1997.. N	N	X	X	512 832
33261111	Hot formed, hot wound, and helical automobile coil steel springs	2002.. N	X	X	179 978
	1997.. N	N	X	X	181 501
3326111101	Hot formed, hot wound, and helical automobile coil steel springs for domestic replacement and shipments for export	2002.. 14	X	X	37 015
	1997.. 14	14	X	X	47 858
3326111106	Hot formed, hot wound, and helical automobile coil steel springs for shipment to U.S. motor vehicle manufacturers or their suppliers for use in original equipment	2002.. 12	X	X	142 963
	1997.. 11	11	X	X	133 643
33261112	Hot formed automotive, truck, bus, trailer, etc., leaf steel springs	2002.. N	X	X	54 978
	1997.. N	N	X	X	186 486
3326111216	Hot formed automotive, truck, bus, trailer, etc., leaf steel springs for domestic replacement and shipments for export	2002.. 7	X	X	39 169
	1997.. 17	17	X	X	89 016
3326111221	Hot formed automotive, truck, bus, trailer, etc., leaf steel springs for shipment to U.S. motor vehicle manufacturers or their suppliers for use in original equipment	2002.. 5	X	X	15 809
	1997.. 11	11	X	X	97 470
33261113	Other hot formed, hot wound, and helical steel springs	2002.. N	X	X	77 619
	1997.. N	N	X	X	144 845
3326111311	Hot formed and hot wound locomotive, railroad car, and other helical steel springs	2002.. 5	X	X	22 791
	1997.. 10	10	X	X	45 122
3326111326	Other hot formed steel springs, including torsion bar springs and leaf springs for tractors, farm equipment, locomotives, etc.	2002.. 15	X	X	54 828
	1997.. 52	52	X	X	99 723
3326111Y	Hot formed steel springs, except wire, nsk	2002.. N	X	X	1 517
	1997.. N	N	X	X	—
3326111YWV	Hot formed steel springs, except wire, nsk	2002.. N	X	X	1 517
	1997.. N	N	X	X	—
3326113	Cold formed steel springs, except wire	2002.. N	X	X	335 293
	1997.. N	N	X	X	351 232
33261131	Cold formed steel springs, except wire	2002.. N	X	X	333 988
	1997.. N	N	X	X	351 232
3326113101	Cold formed flat springs made of sheet or strip	2002.. 66	X	X	212 329
	1997.. 86	86	X	X	305 926
3326113106	Cold formed helical suspension steel springs	2002.. 17	X	X	121 659
	1997.. 19	19	X	X	45 306
3326113Y	Cold formed steel springs, except wire, nsk	2002.. N	X	X	1 305
	1997.. N	N	X	X	—
3326113YWV	Cold formed steel springs, except wire, nsk	2002.. N	X	X	1 305
	1997.. N	N	X	X	—
332611W	Spring (heavy gauge) manufacturing, nsk, total	2002.. N	X	X	26 662
	1997.. N	N	X	X	9 246
332611WY	Spring (heavy gauge) manufacturing, nsk, total	2002.. N	X	X	26 662
	1997.. N	N	X	X	9 246
332611WYWW	Spring (heavy gauge) manufacturing, nsk, for nonadministrative-record establishments	2002.. N	X	X	8 873
	1997.. N	N	X	X	9 246
332611WYWY	Spring (heavy gauge) manufacturing, nsk, for administrative-record establishments	2002.. N	X	X	17 789
	1997.. N	N	X	X	—

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3326111	Hot formed steel springs, except wire	
	United States..... 2002..	314 092
	..... 1997..	512 832
	California 2002..	16 857
	..... 1997..	15 112
	Illinois 2002..	41 032
	..... 1997..	65 932
	Michigan..... 2002..	5 510
	..... 1997..	N
	Pennsylvania..... 2002..	89 081
3326113	Cold formed steel springs, except wire	
	United States..... 2002..	335 293
	..... 1997..	351 232
	California 2002..	26 400
	..... 1997..	66 782
	Illinois 2002..	18 795
	..... 1997..	51 584
	Michigan..... 2002..	35 519
	..... 1997..	26 507
	Pennsylvania..... 2002..	45 895
	..... 1997..	40 188
	Texas 2002..	5 194
	..... 1997..	18 974

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
332611	Spring (heavy gauge) manufacturing		
00900001	Total materials .....2002..	X	255 134
	.....1997..	X	327 881
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	2 707
	.....1997..	X	10 762
33200095	Other fabricated metal products (excluding castings and forgings) .....2002..	X	D
	.....1997..	X	3 788
33100035	Castings, rough and semifinished .....2002..	X	D
	.....1997..	X	1 245
33120071	Steel bars and bar shapes (excluding castings, forgings, and fabricated metal products) .....2002..	X	44 151
	.....1997..	X	106 784
33120016	Steel sheet and strip (including tinplate) .....2002..	X	29 394
	.....1997..	X	N
33120025	Steel wire and wire products .....2002..	X	82 256
	.....1997..	X	54 842
33120035	All other steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	8 584
	.....1997..	X	25 079
331000AJ	Nonferrous metal shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	1 289
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	20 354
	.....1997..	X	65 658
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	41 038
	.....1997..	X	58 434

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.